FINAL REMEDIAL ACTION REPORT

Cornell-Dubilier Electronics, Inc. Superfund Site
Operable Unit 1 (OU1) – Indoor Dust Remediation
Delmore Avenue and Jackson Avenue
South Plainfield, Middlesex County, New Jersey

DC No: RST3-01-F-0097
TDD No: TO-0001-0037
EPA Contract No: EP-S2-14-01

Prepared for:

U.S. Environmental Protection Agency
Region II – Removal Action Branch
2890 Woodbridge Avenue
Edison, New Jersey 08837

Prepared by:

Removal Support Team 3
Weston Solutions, Inc.
East Division
Edison, New Jersey 08837

March 2015

334586

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LIST OF ATTACHMENTS

1.0 INTRODUCTION

This Remedial Action Report (RAR) describes the U.S. Environmental Protection Agency (EPA), Removal Action Branch (RAB), actions taken to clean up the polychlorinated biphenyl (PCB) contamination present in three residential properties located along Jackson Avenue and Delmore Avenue. The three properties were located in the vicinity of the former Cornell-Dubilier Electronics, Inc. (CDE) facility. The cleanup activities were performed as part of the Operable Unit 1 (OU1) Remedial Action for the Cornell-Dubilier Electronics, Inc. Superfund Site (the Site).

The OU1 remedy was selected to remove and dispose of PCB-contaminated soil and interior dust at residential, commercial, and municipal properties in the vicinity of the former CDE facility. The Remedial Action was performed in accordance with the *Record of Decision for Operable Unit One* (ROD) that was signed by EPA in September 2003 and included the following remedial components:

- Excavation of an estimated 2,100 cubic yards (yd^3) of contaminated soil from approximately 16 properties, backfilling with clean fill, and property restoration as necessary;
- Transportation of contaminated soil off-site for disposal, with treatment as necessary;
- Indoor dust remediation where PCB-contaminated dust is encountered; and,
- Where necessary, temporary relocation of residents during the indoor remediation.

This RAR provides information regarding cleanup activities conducted at three residential properties between August 4 and 11, 2014. The three residential properties remediated as part of this action were located along Delmore Avenue (Property ID 129) and Jackson Avenue (Property ID 306 and Property ID 307).

2.0 SITE DESCRIPTION

The Site is located in South Plainfield, Middlesex County, New Jersey (refer to Attachment A, Site Map). CDE operated at the facility located at 333 Hamilton Boulevard from 1936 to 1962 manufacturing electronic parts and components, including capacitors. During its operation, the company dumped material contaminated with PCBs and other hazardous substances directly onto on-site soils. On April 2, 1997, the Site was referred to the EPA for Removal Action consideration by the New Jersey Department of Environmental Protection (NJDEP). The Site was added to the National Priorities List (NPL) in 1998.

The historic practices described above at the former CDE facility raised the concern that vicinity properties had the potential to be contaminated with PCBs via the airborne entrainment of contaminated particulates (*i.e.,* fugitive dust emissions) and/or transport by vehicles. Studies performed on vicinity properties indicated that contamination from the former CDE facility had migrated to nearby areas. PCBs have been detected in groundwater, soils, and in building

interiors at the industrial park; at adjacent residential, commercial, and municipal properties; and in surface water and sediments of the Bound Brook.

In order to facilitate investigation and remediation efforts, EPA separated the Site into multiple Operable Units. OU1 consists of the residential, commercial, and municipal properties in the vicinity of the former CDE facility. A ROD for OU1 was signed on September 30, 2003.

The 2003 ROD for OU1 defines a Remediation Goal (RG) for the OU1 properties of 1.0 parts per million (ppm) for total PCBs in soil. The same criterion serves as the RG for interior dust. The 1.0 ppm criterion is equal to 1.0 milligram per kilogram (mg/kg) or 1,000 micrograms per kilogram (µg/kg). The RG was developed by EPA in accordance with EPA's August 1990 guidance document entitled *Guidance on Remedial Actions for Superfund Sites with PCB Contamination (PCB Guidance)*. Based on the PCB Guidance, EPA selected an RG of 1 ppm for soil and interior dust, which corresponds to a non-cancer Hazard Index of 1 and a cancer risk of 5×10^{-6} based on residential exposure.

In November 2010, EPA completed OU1 cleanup activities by addressing interior dust at six residential properties (Property IDs 110, 111, 112, 116, 121, and 123) that tested positive for PCB contamination above the RG of 1 ppm. The remediation of the six residential properties was performed by EPA and its Emergency Rapid Response Services (ERRS) contractor.

Following the November 2010 action involving the interior cleaning of six residential properties, additional properties were identify for assessment. On July 1, 2011, interior dust sampling was performed at Property ID 306, a one story residence with a finished basement. A total of two samples were collected from the property and submitted for PCB analysis. One sample was collected from the first floor and the other was collected from the finished basement. The *Final Phase 2 OU-1 Characterization Report*, dated April 2012, indicated that the residence was observed to contain little dust and that samples included dust from the heating, ventilating, and air conditioning (HVAC) registers as well as areas around the HVAC unit in order to have sufficient volume for analysis. Both samples collected were reported as exceeding the RG of 1 ppm for total PCBs. The analytical results of the interior sampling were reported as follows;

- First Floor: CDE-OU1-ID-306-01A (21.400 ppm)
- Basement: CDE-OU1-ID-306-01B (11.100 ppm)

On July 1, 2011, interior dust sampling was performed at Property ID 307, a two story residence with an unfinished basement. A total of two samples were collected from the property and submitted for PCB analysis. One sample was collected from the first floor and the other was collected from the second floor. The first floor sample was reported as exceeding the RG for total PCBs of 1 ppm. Confirmatory sampling was also conducted on April 26, 2013 at Property ID 307. The analytical results of both sampling events were reported as follows;

- First Floor: CDE-OU1-ID-307-01A (103.000 ppm)
- Second Floor: CDE-OU1-ID-307-01B (5.200 ppm)
- First Floor Confirmation Sampling: CDE-OU1-ID-2013-307-01 (106 ppm)
- Second Floor Confirmation Sampling: CDE-OU1-ID-2013-307-02 (4.1 ppm)

On April 25, 2013, interior dust sampling was performed at Property ID 129. A total of two samples were collected from the Property and submitted for PCB analysis. One of the samples, collected from the second floor of the residence, exceeded the RG for total PCBs of 1 ppm. The analytical results of the interior samples were as follows;

- First Floor: CDE-OU1-ID-2013-129-01 (0.77 ppm)
- Second Floor: CDE-OU1-ID-2013-129-02 (1.31 ppm)

3.0 SCOPE OF WORK

The current cleanup activities at the Site focused on the remediation of three additional PCB-contaminated residential properties (Property IDs 129, 306, and 307). Previous dust sampling at Property ID 307 indicated PCB-contamination to be above 50 ppm requiring liquid and solid waste generated from the cleanup operation at that property to be managed as a Toxic Substances Control Act (TSCA) waste. Assessment sampling at Property IDs 129 and 306 reported results of PCBs as less than 50 ppm. Property IDs 129 and 307 included the cleaning of three floors with multiple bedrooms. Previous dust sampling at Property ID 306 was found to have elevated concentrations of PCBs within the residence's HVAC duct system. Based on the sampling within Property ID 306, EPA proceeded with a thorough cleaning of the HVAC system and mechanical room at that property.

The scope of work was completed with the support of EPA's Weston Solutions, Inc., Removal Support Team 3 (RST 3) and ERRS contractors. The ERRS contractor utilized a High-Efficiency Particulate Air (HEPA) vacuum and a wiping/moping procedure using a cleaning solution of Lestoil and water on all surfaces. The surfaces remediated included heating radiators, heating/cooling ducts, linoleum/tile/wood floors, walls, counter tops/table tops, shelving, and interior décor items. Larger appliances were also moved to recover dust and/or debris from beneath or behind the appliance. Permanent filters on fixed appliances and/or portable air conditioning (A/C) units were also cleaned and vacuumed using a HEPA vacuum. The RST 3 contractor supported EPA by providing oversight and video and photographic documentation of the pre- and post-cleaning conditions of the properties remediated by the ERRS contractor (refer to Attachment B, Photographic Documentation Log).

4.0 SITE HEALTH AND SAFETY PROGRAM

4.1 ERRS Response Manager

The ERRS Response Manager (RM) was directly responsible for ensuring the preparation and daily implementation of the Site-Specific Health and Safety Plan (HASP) for all ERRS personnel. The ERRS RM maintained communication with ERRS personnel concerning site-specific health and safety concerns and project status. In case of emergency, the ERRS RM took immediate action to correct any deficiencies in safety operations reported to him by on-site personnel.

4.2 ERRS/RST 3 Staff

Each ERRS and RST 3 member was responsible for adhering to all provisions of the Health and Safety Program and individual Site-Specific HASPs. In addition, contractors were expected to exercise appropriate caution with respect to their individual safety and be concerned with the safety of fellow team members. All ERRS and RST 3 contractors had the responsibility of identifying and being aware of workplace hazards, evaluating the hazards, and implementing appropriate measures to protect themselves against those hazards.

4.3 Personal Protective Equipment (PPE)

Modified Level D PPE was utilized by ERRS and RST 3 personnel during the remediation activities which consisted of the following:

- Steel toe boots;
- Latex boot covers;
- Work gloves or chemical resistant Nitrile® gloves; and,
- Coveralls (Chemical/Particulate Resistant).

5.0 CHRONOLOGY OF EVENTS

August 4, 2014 (Property ID 307)

On Monday, August 4, 2014, EPA and RST 3 conducted a walk-through of Property ID 307 to complete video and photographic documentation of the condition of the property prior to the ERRS contractor initiating remediation activities. The ERRS contractor performed a gross cleaning of the basement and second floor. RST 3 also provided photographic documentation of the ERRS remediation activities.

August 5, 2014 (Property ID 307)

On Tuesday, August 5, 2014, the ERRS contractor completed the thorough cleaning of the basement and second floor of Property ID 307. ERRS progressed to the first floor and worked their way from the rear of the house toward the breezeway (the decontamination room) HEPA vacuuming all surfaces, countertops, and baseboard heaters following up with a thorough wiping using a water and Lestoil solution. At the direction of the real estate agent and EPA, all abandoned items and kitchen appliances were disposed of, including window blinds and curtains left behind by the former property owner and/or tenants. RST 3 provided photographic documentation of the ERRS remediation activities, items to be disposed of, and the remediated property. RST 3 also completed video documentation of the property after it had been remediated.

August 6, 2014 (Property ID 129)

On Wednesday, August 6, 2014, EPA and RST 3 conducted a walk-through of Property ID 129 to complete video and photographic documentation of the condition of the property prior to the ERRS contractor initiating remediation activities. The ERRS contractor HEPA vacuumed all surfaces and wiped all items with a water and Lestoil solution and completed the remediation of the basement. The homeowner declined temporary relocation assistance and was present throughout the remediation activities.

August 7, 2014 (Property ID 129)

On Thursday, August 7, 2014, RST 3 continued to document ERRS remediation efforts at Property ID 129. Due to the lack of space, ERRS divided into two groups with one crew remediating the second floor while the other focused on the first floor office. The ERRS crews shifted items into adjacent uncleaned rooms to be vacuumed and wiped. Care was taken to place all items back into their respective places. All surfaces on the second floor were vacuumed, wiped, and carpet shampooed. The office and back bedroom were both vacuumed and all items were wiped.

August 8, 2014 (Property ID 129)

On Friday, August 8, 2014, the ERRS contractor progressed to vacuuming and shampooing the stairway, downstairs bedroom, and living room carpets at Property ID 129. ERRS paid close attention to ensure all baseboard heaters and vents were thoroughly cleaned. The kitchen was cleaned last as ERRS exited the residence. EPA and RST 3 conducted a final walk through of the remediated residence to complete photographic and video and documentation of the property after it had been remediated.

August 11, 2014 (Property ID 306)

Based on the results of assessment sampling, EPA RAB was requested to clean the HVAC system at Property ID 306. ERRS subcontracted with a professional/commercial HVAC system cleaning contractor which utilized a high-powered HEPA collection system to recover dust from the ducts of the HVAC system. Each duct was isolated while the subcontractor implemented a push-pull system to loosen and collect dust from the duct at the HEPA collection unit. Mechanical whips with high pressure air hoses were inserted into the isolated duct. A high-powered HEPA unit was tied into the isolated duct at the HVAC air handling unit where it also pulled dislodged dust to the HEPA unit for collection. Following the duct cleaning operation, ERRS completed the cleaning by wet wiping, with Lestoil and water solution, all supply/return registers as well as the mechanical room which housed the HVAC air handling unit and furnace.

6.0 WASTE MANAGEMENT

Wastewater and solid waste generated from ERRS remediation activities were collected and segregated for sample collection and waste characterization based on the assessment sampling data. All waste generated from Property ID 307 was managed as a TSCA waste stream due to the assessment sampling results exceeding 50 ppm for total PCBs. Wastewater generated from Property IDs 129 and 306 was segregated and managed as a non-TSCA waste pending analysis. Wastewater generated from the remediation of Property IDs 129/306 and Property ID 307 was collected into two separate 55-gallon liquid containers. ERRS submitted samples from each container to York Analytical Laboratories for PCB analysis. The analytical results for the sample collected from the Property ID 129/306 wastewater indicated a concentration of 1.37 micrograms per liter (µg/L) for total PCBs. The analytical results for the sample collected from the Property ID 307 wastewater did not indicate PCBs at concentrations above the method detection limit (MDL).

All solid wastes, including used HEPA filters, recovered dust, cleaning rags, and gloves were consolidated into one 55-gallon drum and managed as a TSCA waste stream. The solid waste was sampled and submitted to York Analytical Laboratories for PCB analysis. The analytical results for the solid waste were reported at 4.79 mg/kg for total PCBs.

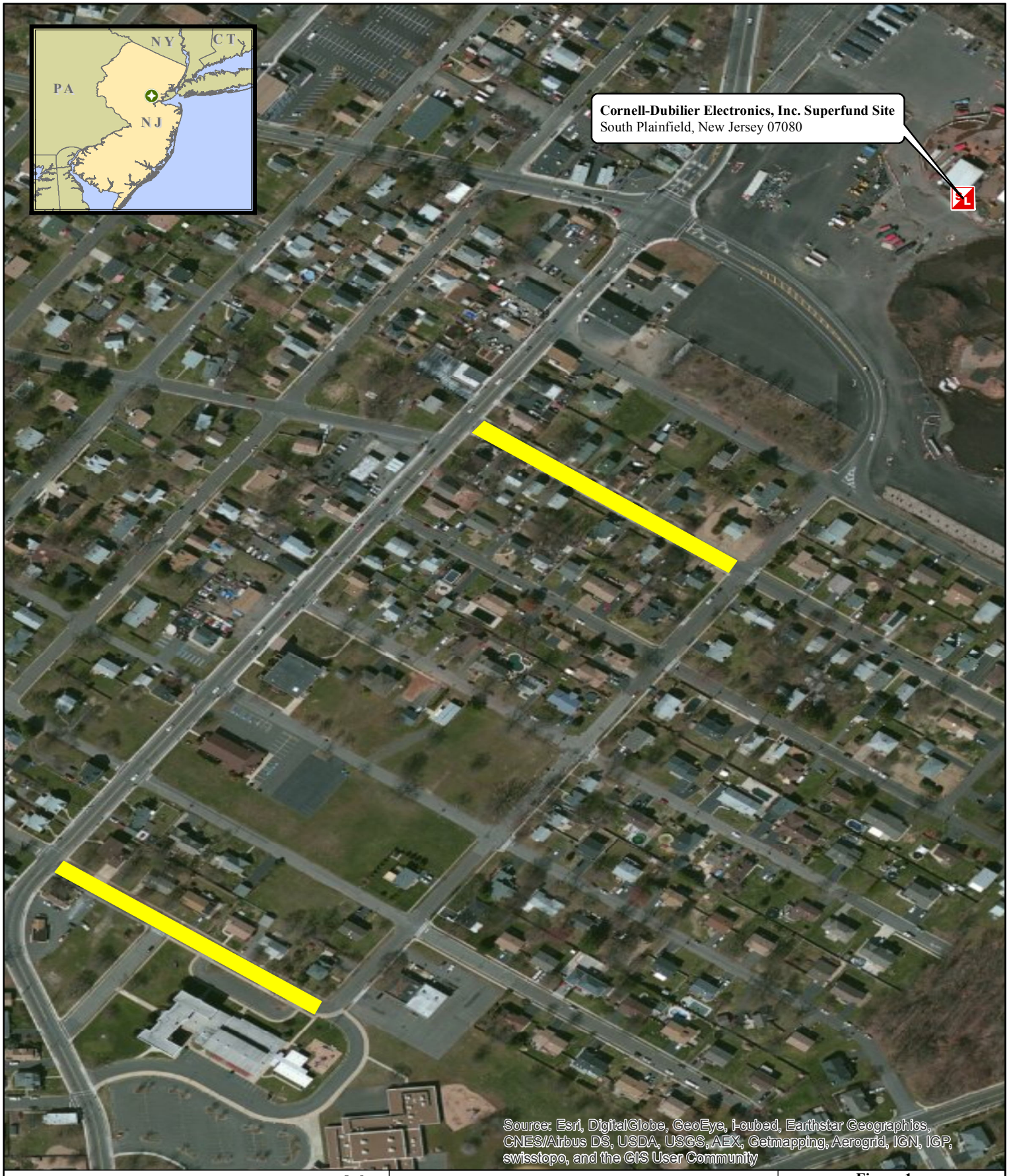
Refer to Attachment C for the waste characterization analytical results. Refer to Attachment D for waste manifest and certificates of disposal.

Report Prepared By: _____ Date: 3/25/15
Timothy Benton, CHMM
Site Project Manager, RST 3

Report Reviewed By: _____ Date: 3/25/15
Timothy Benton, CHMM
Operations Leader, RST 3

ATTACHMENT A

SITE MAP



Legend

SL Site Location

Cleanup Areas

N

0 0.03 0.06 0.12 Miles

Weston Solutions, Inc.
East Division

In Association With Scientific and Environmental Associates, Inc., Environmental Compliance Consultants, Inc., Avatar Environmental, LLC, On-Site Environmental, Inc.and Sovereign Consulting, Inc

Figure 1: Site Map

Cornell-Dubilier Electronics, Inc. Superfund Site
South Plainfield, New Jersey

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 3
CONTRACT # EP-S2-14-01

DATE MODIFIED: 3/25/2015	
GIS ANALYST:	T. BENTON
EPA OSC:	M. GALLO
RST SPM:	T. BENTON
FILENAME:	150325_SITE_LOCATION_MAP

\\fsed2data1\gisdata\RST_3\00010037\MXD\150325_Site_Location_Map.mxd

ATTACHMENT B

PHOTOGRAPHIC DOCUMENTATION LOG

Photographic Documentation Log

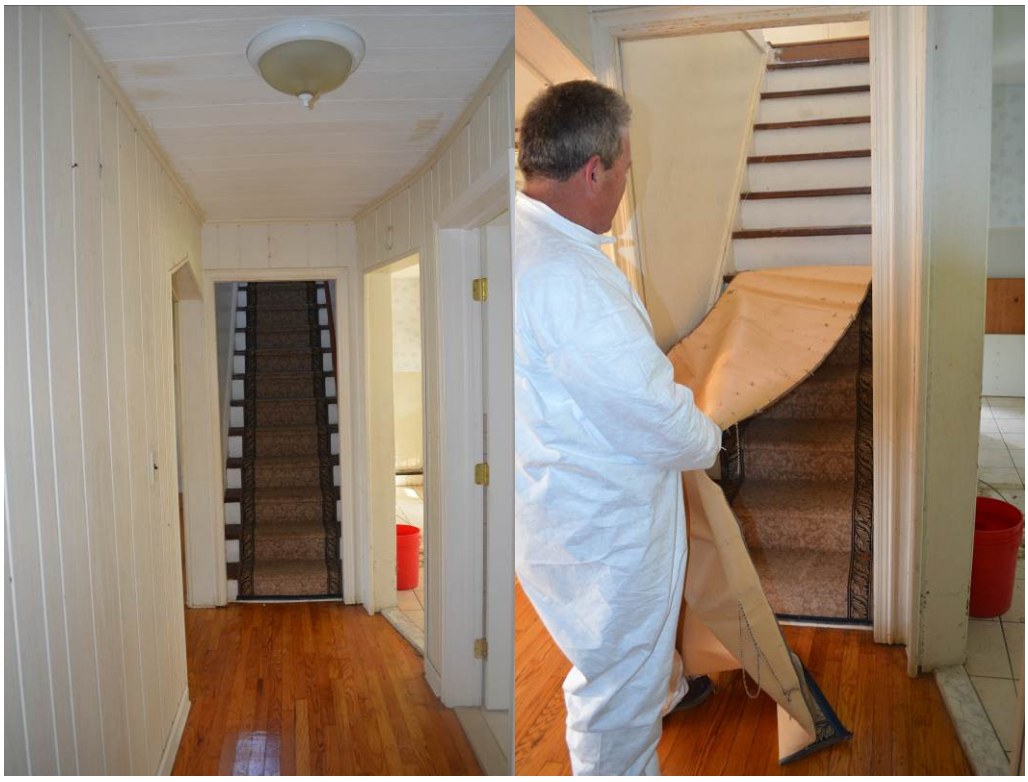
Cornell-Dubilier Electronics, Inc. Superfund Site – Cleanup Activities
August 4 through 11, 2014

Photograph 1: Left photograph taken on August 4, 2014 prior to ERRS intiating the remediation of Property ID 307. The right photograph is post-cleaning taken on August 5, 2014. Heating baseboards were thoroughly washed and dusted. The closet items and window blinds were disposed of.

Photograph 2: Left photograph is a bedroom in Property ID 307 prior to cleaning. Photograph on the right is post-cleaning. The matteress and items in closet were disposed of and baseboard vents were thoroughly cleaned.

Photograph 3: Left photograph was taken facing the north and the right photograph was taken facing the south within the basement of Property ID 307. Both photographs were taken on August 4, 2014, prior to cleaning.

Photograph 4: Photographs of the ERRS completed cleaning of the basement within Property ID 307 on August 5, 2014. Ceiling, walls, floor, and applainces were HEPA vacuumed and wiped with Lestoil and water.



Photograph 5: Stair carpeting was removed and disposed of at Property ID 307.

Photographic Documentation Log

Cornell-Dubilier Electronics, Inc. Superfund Site – Cleanup Activities
August 4 through 11, 2014

Photograph 6: Left photograph is the pre-cleaned kitchen of Property ID 307 photographed on August 4, 2014. Right photograph is the remediated kitchen.

Photograph 7: ERRS removed and disposed of furniture, paints and items in second floor closet of Property ID 307 and vacuumed and washed the ceiling, walls, vents and floor.

Photograph 8: Photograph taken on August 5, 2014 of the post-cleaned sencond floor of Property ID 307.

Photograph 9: Photograph taken on August 6, 2014 prior to cleaning of Property ID 129. ERRS HEPA vacuumed and wiped the basement ceiling, walls, floor, and items with Lestoil and water.

Photograph 10: ERRS performing cleaning activities in the basement of Property ID 129. Each item was wiped and neatly placed back into its respective spot after cleaning.

Photograph 11: Left photograph taken on August 6, 2014 before cleaning of the bedroom at Property ID 129 and right photograph after cleaning on August 8, 2014.

Photograph 12: Left photograph taken on August 6, 2014 before cleaning and right photograph taken on August 8, 2014 after cleaning at Property ID 129.

Photograph 13: Left photograph taken prior to cleaning and right photograph after the kitchen was cleaned by the ERRS contractor at Property ID 129. Photographed on August 6 and 8, 2014, respectively.

Photograph 14: During cleaning activities, ERRS used the bedroom above as a staging area for office items. All items were cleaned and placed back in their place. Bedroom of Property ID 129 and rug were cleaned and shampooed on August 8, 2014.

ATTACHMENT C

WASTE CHARACTERIZATION ANALYTICAL RESULTS

Technical Report

prepared for:

Environmental Restoration
110 Granby Street
Bloomfield CT, 06002
Attention: Blake MacKinney

Report Date: 08/20/2014
Client Project ID: CD2-84
York Project (SDG) No.: 14H0603

Report Date: 08/20/2014
Client Project ID: CD2-84
York Project (SDG) No.: 14H0603

Environmental Restoration
110 Granby Street
Bloomfield CT, 06002
Attention: Blake MacKinney

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on August 13, 2014 and listed below. The project was identified as your project: **CD2-84**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
14H0603-01	Jackson 1	Water	08/11/2014	08/13/2014
14H0603-02	Jackson 2	Soil	08/11/2014	08/13/2014
14H0603-03	Delmour 3	Water	08/11/2014	08/13/2014

General Notes for York Project (SDG) No.: 14H0603

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By: 

Date: 08/20/2014

Benjamin Gulizia
Laboratory Director

YORK
ANALYTICAL LABORATORIES INC

Sample Information

Client Sample ID: Jackson 1 **York Sample ID:** 14H0603-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14H0603	CD2-84	Water	August 11, 2014 10:20 am	08/13/2014

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:** EXT-EM

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:03	AMC
	Surrogate Recoveries	**Result**		**Acceptance Range**							
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*4.50 %*	S-04	*30-120*							
2051-24-3	*Surrogate: Decachlorobiphenyl*	*%*	S-04	*30-120*							

Sample Information

Client Sample ID: Jackson 2 **York Sample ID:** 14H0603-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14H0603	CD2-84	Soil	August 11, 2014 10:25 am	08/13/2014

Polychlorinated Biphenyls (PCB)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
11097-69-1	**Aroclor 1254**	**2.06**		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
11096-82-5	**Aroclor 1260**	**2.73**		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
1336-36-3	*** Total PCBs**	**4.79**		mg/kg dry	0.175	0.175	10	EPA 8082A	08/18/2014 19:00	08/19/2014 18:58	AMC
	Surrogate Recoveries	**Result**		**Acceptance Range**							
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*80.0 %*		*30-140*							
2051-24-3	*Surrogate: Decachlorobiphenyl*	*380 %*	GC-Sur r	*30-140*							

Total Solids

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: **Jackson 2** **York Sample ID:** **14H0603-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14H0603	CD2-84	Soil	August 11, 2014 10:25 am	08/13/2014

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**95.2**		%	0.100	0.100	1	SM 2540G	08/19/2014 11:25	08/19/2014 13:05	KK

Sample Information

Client Sample ID: **Delmour 3** **York Sample ID:** **14H0603-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14H0603	CD2-84	Water	August 11, 2014 10:20 am	08/13/2014

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes: **EXT-D, EXT-EM**

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
11097-69-1	**Aroclor 1254**	**1.37**		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC
1336-36-3	*** Total PCBs**	**1.37**		ug/L	0.0556	0.0556	1	EPA 8082A	08/15/2014 05:16	08/18/2014 15:23	AMC

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*30.5 %*	*30-120*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*42.0 %*	*30-120*

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-Surr	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the alternate surrogate.
EXT-EM	The sample exhibited emulsion formation during the extraction process. This may affect surrogate recoveries.
EXT-D	The sample submitted contained sediment. The aqueous portion was decanted off, the volume measured and used for the extraction. The sediment was not included in the extraction.

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*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.
For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

ENVIRONMENTAL RESTORATION LLC

1666 Fabick Drive
Fenton, MO 63026
(636) 227-7477
Fax (636) 227-6447

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody

Page _____ of _____

Prepared by:

14H0603

Report to: Amy Riggott / Blake Mackinney

Email to: a.riggott@erllc.com / b.mackinney@erllc.com

Project Description: Cornell Dubilier

City/State Collected: South Plainfield NJ

Phone: 860-778-9207
Fax:

Client: USEPA Region 2

Project Name: CD2-84

Collected by: Mackinney

Site/Facility ID #:

P.O. #: CD2-84

Collected by (signature): Blake Mackinney

Rush (Lab MUST Be Notified)
_____ Same Day
_____ Next Day
_____ Two Day

Date Results Needed:

Email? ___ No ✓ Yes

Fax? ___ No ___ Yes

Packed on Ice N (Y)

CoCode (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Containers	Total Metals	Remarks/Containment	Sample # (lab only)
Jackson 1	Grab	WW	NA	8-11-14	1020	2	✓	2, 1 liter Amber	
Jackson 2	Grab	SS	NA	8-11-14	1025	1	✓	1, 8oz Clear	
Delmore 3	Grab	WW	NA	8-11-14	1020	2	✓	2, 1 liter Amber	

*Matrix SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Blake Mackinney	8-13-14	0815	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
			8/13/14 8:15
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			47

Samples returned via:
☐ UPS ☐ Fed Ex ☐ Courier ☐

Temp: Bottles Received:

Date: Time:

Condition (lab use only)

pH Checked NCF:

ATTACHMENT D

WASTE MANIFEST AND CERTIFICATES OF DISPOSAL

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NJR000200026	1	(908) 354-0210	010408120 JJK

5. Generator's Name and Mailing Address: US EPA Region 2/Cornell Dubilier Site
2890 Woodbridge Avenue
Edison, NJ 08837
Generator's Phone: (732) 906-6871

Designated Site Address (if different than mailing address):
333 HAMILTON BLVD
SOUTH PLAINFIELD NJ 07080

6. Transporter 1 Company Name: CLEAN VENTURE INC. — U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Cycle Chem Inc.
217 South First Street
Elizabeth, NJ 07206
Facility's Phone: (908) 355-5800 — U.S. EPA ID Number: NJD002200846

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	UN3432 POLYCHLORINATED BIPHENYLS, SOLID 9 PG III ERGW 171	1	DM	35	K	
X	UN2315 POLYCHLORINATED BIPHENYLS, LIQUID 9 PG II ERGW 171	1	DM	150	K	
	Non-DOT Non-RCRA	1	DF	55	G	D072
	c.					

14. Special Handling Instructions and Additional Information: 971108/964257/167109/313705 (1)PCBM1-1 USED HEPA FILTERS,DUST AND RAGS-TSCA REG.(jackson 2) (2)PCBM44-4 WASH WATER PCB TSCA REG.(jackson 1),(3)PC04-2 wash water(NON TSCA WASTE) (delmour 1)
1-OUT OF Service Date: 9-23-14 2-OUT OF service Date: 9-23-14

15. GENERATOR/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator/Offeror's Printed/Typed Name: MARK GALLO — Signature: Mark Gallo — Month 9 Day 24 Year 14

INTERNATIONAL SHIPMENTS

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ____
Transporter signature (for exports only): Date leaving U.S.: ____

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: George Desrosiers — Signature: George Desrosiers — Month 9 Day 24 Year 14

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Richard Gibson — Signature: Richard Gibson — Month 9 Day 24 Year 14

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

(1)

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
Model City, NY 14107
716 286 1550
716 286 0211 Fax

DEC 03 2014

Clean Venture/Cycle Chem

CYCLE CHEM INC
ATTN: JIM BUTLER
NJD002200046
217 S 1ST ST
ELIZABETH NJ 07206-1502

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C., EPA ID: NYD049836679, has received waste material from CYCLE CHEM INC on 11/06/14 as described on Shipping Document number 012353723JJK Sequence number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: CL3851
CWM Tracking ID: 8166662401 Solid Drum
CWM Unit #: 1*0 thru 11*0
Disposal Date: 12/05/14

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Michael D. Mahar

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 373967
12/09/14

For questions please call our Customer Service Dept. at (800) 843-3604

Landfill Run 1, Grid location Y25-13

(2)

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
Model City, NY 14107
716 286 1550
716 286 0211 Fax

CYCLE CHEM INC
ATTN: JIM BUTLER
NJD002200046
217 S 1ST ST
ELIZABETH NJ 07206-1502

CERTIFICATE OF TREATMENT

CWM CHEMICAL SERVICES, L.L.C. located in MODEL CITY, NY has received waste material from CYCLE CHEM INC on 11/26/14 as described on Shipping Document Number 012353748JJK Sequence Number 01. CWM CHEMICAL SERVICES, L.L.C. hereby certifies that the above described material was treated in accordance with the CWM TSCA Approval Letter issued under 40CFR Part 761 as it pertains to the management of polychlorinated biphenyl contaminated materials. The resulting treated effluent is discharged under the CWM SPDES permit.

Profile Number: CV9478
CWM Tracking ID: 8166699201
CWM Unit #: 1*0
Disposal Date: 11/26/14

Liquid Drum

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

MICHAEL D MAHAR
DISTRICT MANAGER
Certificate # 373712
12/01/14

For questions please call our Customer Service Dept. at (800) 843-3604

(3)

Non-Haz

WASTE MANAGEMENT

TULLYTOWN LANDFILL
GREEK, 1000 New Ford Mill Road
Morrisville, PA, 19067 Ph: 215-736-1700
THE PERSON MOST RESPONSIBLE FOR YOUR SAFETY IS YOU!

Original
Ticket# 1494517

Customer: CycleChemNJ Cycle Chem Inc NJ
217 S 1ST ST
ELIZABETH, NJ, 07206

Carrier: MORALES TRUCKING Morales Trucking
Morales Trucking

Tkt Date 10/13/2014
Pay Type Credit Account Chk#
Billing# 0001587
Acc Tons 19.74
Man Tkt#
PO#

Vehicle# 4
Trailer#
License#
Driver
Haul Tkt#
Dest

Volume

Generator 132-Cycle Chem Cycle Chem
EPA ID *
Manifest 2618837
Trailer#

Profile# 5443270 CT-688 Decharacterized Waste
Waste # 001
Origin M/County NJ/NEW JERSEY (State o,N
NEW JERSEY

Date/Time Scale Operator
In 10/13/2014 08:21 TRNF [illegible]
Out 10/13/2014 10:05 TRNF [illegible]

Transaction Type Inbound
Gross [illegible] lb
Tare 27103 lb
Net [illegible] lb
@ Tons 19.74

WASTE MANAGEMENT

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
Declassified SPW-T	100	19.74	Tons				NJ
EVF L-Standard Env	100		Load				NJ
RCR-A-Regulatory C	100		%				NJ

Grue N2 10-13-14

Total Tax
Total Ticket

Weighmaster: _____ Driver: _____

403-WMPA

CUSTOMER'S COPY